The Rector



HAVING REGARD TO Politecnico di Milano's Articles of Association;
HAVING REGARD TO Ministerial Decree 3.11.1999, no. 509;
HAVING REGARD TO Ministerial Decree 22.10.2004, no. 270;
HAVING REGARD TO the University's Educational Rules - Regulations;
HAVING REGARD TO the Regulation for 1st and 2nd level Specialising Masters, Post Graduate Courses and Continuing Education of Politecnico di Milano issued with Rector's Decree no. 6485 of 30.05.2024;
HAVING ACQUIRED the favourable opinion of the Academic Senate during the meeting on 17.06.2024, on

the establishment and activation of proposals for Specialising Masters, including the first level Specialising Master in "BIM MANAGEMENT IN CONSTRUCTION WORKS"

HEREBY DECREES

that the first level Specialising Master in "BIM MANAGEMENT IN CONSTRUCTION WORKS" is established and activated for the years 2025/2026.

ART. 1 Master's features

The first level Specialising Master in "BIM MANAGEMENT IN CONSTRUCTION WORKS" has been set up and activated at the Architecture, Built Environment and Construction Engineering Department.

The Master is provided by CONSORZIO CIS-E. The reference school is the School of Architecture Urban Planning and Construction Engineering.

The Specialising Master's Director is Professor Pietro Giuseppe Crespi. The Vice Director is Professor Claudio Mirarchi.

The Scientific Committee of the Specialising Master's programme is composed by Professors from Politecnico di Milano: Alberto Franchi, Paola Ronca, Roberto Cigolini, Pietro Giuseppe Crespi, Claudio Mirarchi and eng. Alessandro Zichi; and by Mario Caputi from IN2IT.

ART. 2

Educational objective and employment opportunities

The course is focused on the development of BIM managers and professionals in integrated projects. Based on as defined by the European Parliament procurement (European Union Public Procurement Directive, EUPPD) and the use of BIM in the design activities in the construction sector for the public works carried out with funds from the European Union as of 2016, there will be an excursus on the law, data processing, responsibilities followed by basic training on the use of some applications. Some theoretical fundamentals and practical applications, will allow students to manage files and projects drafted in the field of integrated design. We will discuss some widely used software and functionality as well as the fields of application. The basic training will provide a clear idea of the possible prospects for improvement in the management of procurement, design validation and interference control, as well as work progress. Particular importance is given to project work and homework on case studies. The course is focused on issues related to BIM integrated design tools. The architectural, plant, energy, structural design, management of the sites and management of the buildings are supported by software tools compatible with each other, in BIM logic. With BIM software, it is also possible to manage practices related to the environmental aspects of the construction of buildings and infrastructure, to a choice of technologies and solutions both in new buildings and infrastructure, and in the recovery of existing construction and infrastructure.

Expected occupations and opportunities: Engineering and Architectural design Firms, Engineering Departments and Public Bodies, Construction Firms, Research and Experimental Laboratories, and Environmental and Civil Protection Agencies.

The Master's will be delivered in English and can also be followed online.

ART. 3

Teaching content and organisation

The Specialising Master's will start in March 2025 and will end in March 2026.

The Master is essentially divided into two semesters: the first involves lectures, seminars, practical exercises; the second is dedicated to the completion of the internship and thesis. The Master will held in the classroom and online by Politecnico di Milano's professor and experts in BIM application. The students enrolled on the Online Master will be able to attend lessons in synchronous or asynchronous mode overall the Academic Year. All students will have access to material and video recorded lessons that will be uploaded on the online platform and will remain available to students until the date of graduation. With a small additional contribution, students may also benefit from other short courses offered by the School, to complete their education. Most of the lectures will have materials in Italian and/or English.

Didactic activity MANDATORY Courses SSD ECTS Course Introduction: Digital revolution and its impact on the national ICAR/13 1 and international arena BIM Regulations and standards 2 ICAR/14 Becoming a certified BIM manager ICAR/14 1 2 Project management for BIM ING-IND/35 Data as asset: PIM (Product Information Modeling) and AIM ICAR/12 2 (Asset Information Modeling) BIM for architectural authoring ICAR/09 2.5 BIM for structures ICAR/09 2,5 BIM to MEP and BIM to BEM (Building Energy Modeling) ICAR/09 2,5 BIM for infrastructural authoring ICAR/09 2,5 Coordination, review and validation ICAR/12 2,5 Schedule and computing (4D and 5D) ICAR/12 1 BIM for industrialization in construction and BIM to Field ICAR/12 1 Building management and maintenance (6D and 7D) ICAR/12 1 Data analisys (Business Intelligence e Big Data) and CDE on 2 ICAR/12 documents, models and data Common data environment and other tools for the digital ICAR/09 2,5 future of the construction field Oracle Primavera P6 3 ICAR/09 Legal BIM 1 ICAR/12

The master's is a **61 ECTS** programme and teaching will be organised as follows:

Other activities	MANDATORY Courses	MANDATORY Courses	
Course	SSD	ECTS	
Internship	n.a.	22	
Thesis preparation, discussion and final exam	n.a.	7	

ART. 4 Admission requirements

The admission is open to applicants with a Bachelor/Master of Science in Engineering or Architecture. Equivalent foreign qualifications from their respective University Systems will be considered valid. The maximum number of admitted students is 50. The selection process is carried out by the Scientific Committee.

ART. 5 Formal requirements

The **admission application** must be submitted starting from the day after the date of this Decree and <u>no later</u> than one month BEFORE the start of the program.

The extended information on data processing and data subject rights is available on the website www.polimi.it/privacy

The managing authority delivering the program must provide students with all the necessary set of forms and information on how to correctly apply to the Master's.

Once the validity of the qualification has been verified, the Managing Body will advise the student on the documentation needed to prove the authenticity of their qualification, in accordance with the MIUR/MAE's note "Procedures for entry, residency and enrolment of international students and the respective recognition of qualifications, for higher education courses in Italy for the academic year 2024/2025.

In particular, the Managing Body can request the following documents:

* Italian/foreign citizens having graduated in Italy

- copy of the identity document
- copy of the Diploma Supplement or copy of the degree diploma or self-certification through the appropriate form provided by the Master's Managing Authorithy.

* Italian/EU citizens with qualification obtained abroad

- copy of the identity document
- **copy of the academic qualification** in original language and its translation into Italian/English/French or Spanish
- copy of transcripts with the list of exams in the original language and their translation into Italian/English/French or Spanish or Diploma Supplement in English language (when enrolling, the students have to submit:
 - the Declaration of Value issued by the relevant area's Italian Representative abroad or
 - the **Diploma Supplement with digital signature or electronic time stamp** or, in case of absence of digital signature/electronic time stamp, the **Diploma supplement with apostille** or
 - a certificate issued by the Enic/Naric Centres or
 - $\circ~$ a certificate issued by the World Education Services WES).

Under Art. 75 of Italian Presidential Decree 445/2000, if the Administration, after carrying out suitable checks, finds that the content of the declarations made by the applicant is untrue, the declarant forfeits any benefits obtained through the untrue declaration.

* Non-EU citizens having graduated abroad

Non-EU foreign citizens must submit the following documents to the Managing Authority:

- copy of the degree in the original language and its translation into Italian/English/French or Spanish;
- **copy of the transcripts** with the list of exams in the original language and their translation into Italian/English/French or Spanish (when enrolling, the students have to submit:
 - o the Declaration of Value issued by the relevant area's Italian Representative abroad or
 - the **Diploma Supplement with digital signature or electronic time stamp** or, in case of absence of digital signature/electronic time stamp, **the Diploma supplement with apostille** or
 - a certificate issued by the Enic/Naric Centres or
 - a certificate issued by the World Education Services WES).
- copy of a valid passport)

After the acceptance from the University, and only after confirming to the Managing Authority their participation to the programme in accordance with its procedures, students will have to register on the Ministerial portal https://www.universitaly.it. Once the registration has been completed, the student will have to inform the Managing Authority, so that the application can be sent to the authorities responsible for issuing the entry visa.

The managing authority informs Politecnico di Milano Masters and Continuous Educations unit, about the starting date of the course AT LEAST due months before the starting date.

ENROLMENT PROCESS:

Students admitted to the Master's Programme must obtain the access credentials to Politecnico di Milano's online services on the website <u>www.polimi.it</u>, enter their personal data and attach valid identity document (passport for non-EU citizens). Students already registered are expected to update their personal details, if these are obsolete.

Portal access credentials must be safely kept since they will be required for the access to all Politecnico di Milano's services. Lost credentials can be autonomously restored or obtained through an OTRS ticket.

In order to proceed with the enrolment, students admitted to the Masters' must pay the enrolment fee as well as the enrolment stamp via Politecnico di Milano's online services.

In addition to the above documentation, non-EU citizens must upload a copy of a valid entrance document as well as the residence permit, on their online services personal data record.

In order to be enrolled at Politecnico di Milano, regardless of the Master's delivery mode (in person, online/distance learning), non-EU citizens must upload a copy of a valid passport on their online services personal data record.

ART. 6 Degree and award recognitions

ISSUED CERTIFICATION

In order to be able to take the final exam, students admitted to the Master's final examination have to pay the due fee through the online services of Politecnico di Milano.

At the end of the Programme, upon completion of the course and after passing the final test, the student will be awarded the first level specialising Master in "BIM management in construction works", in English language.

STUDENT OBLIGATIONS

Attendance is compulsory for at least 80 per cent of the programme activities.

Withdrawal from the Programme must be communicated in written form. The training period cannot be suspended for any reasons.

TESTING METHODS

The final exam will consist of the discussion of the master's thesis.

ART. 7

Tuition fees and contributions

The cost of this Specialising Master programme (for in-person participation) is € 6,500.00 divided as follows:

- Politecnico di Milano enrolment fee is € 500.00 per student.
- Participation fee is € 6,000.00 per student

The cost of this Specialising Master programme (for online participation) is € 4,000.00 divided as follows:

- Politecnico di Milano enrolment fee is € 500.00 per student.
- Participation fee is € 3,500.00 per student

Politecnico di Milano enrolment fee will not be refunded under any circumstances.

As far as the Specialising Master participation fee is concerned, it will be the managing authority responsibility to define the procedures.

ART. 8 Personal data processing

Under EU Regulation no. 2016/679 on data protection, the University processes personal data only for purposes related to the master's admission, enrolment and management, and you agree to the disclosure of your personal information to third parties, particularly:

- public and private entities possibly interested in recruitment;
- to academic programme backers; Politecnico Treasurer for services related to tuition fees;
- to Managing Authorities managing loans, housing, flexible employment contracts, cultural, recreational and/or sport activities.
- I authorise the use of the data for statistical purposes in respect of the procedures and authorisations required by the cited regulation.

The extended information on data processing and data subject rights is available on the website <u>www.polimi.it\privacy</u>

ART. 9 Publication

This Decree is made public on Politecnico di Milano's website at <u>https://www.polimi.it/corsi/master-universitari-e-corsi-post-laurea/</u>

FOR CLARIFICATIONS AND FURTHER INFORMATION, PLEASE CONTACT:

Professor PAOLA RONCA

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> The Rector (prof. Donatella Sciuto) *Signed Donatella Sciuto*